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OM protein - protein search, using sw model

Run on: April 27, 2003, 08:52:12 ; Search time 21 Seconds

(without alignments)
408,838 Million cell updates/sec

Title: US-09-836-960-5

Sequence: 1097
1 MYSAPSACGICLHFLLCF.....PKYITVTKRSRRIRPTHPA 207

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 112892 seqs, 41476328 residues

Total number of hits satisfying chosen parameters: 112892

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Maximum Match 0%

Listing first 45 summaries

Database: SwissProt_40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

| Result No. | Score | Query Match | Length | ID | Description |
|------------|-------|-------------|--------|---------------|---------------------|
| 1 | 1097 | 100.0 | 207 | 1 FGF1_HUMAN | 076093 homo sapien |
| 2 | 1081 | 98.5 | 207 | 1 FGF1_MOUSE | 089101 mus musculus |
| 3 | 1081 | 98.5 | 207 | 1 FGF1_RAT | 088182 rattus norv |
| 4 | 574 | 52.3 | 214 | 1 FGF8_CHICK | 090722 gallus gall |
| 5 | 571 | 52.1 | 216 | 1 FGF8_HUMAN | 060258 homo sapien |
| 6 | 566 | 51.6 | 216 | 1 FGF8_MOUSE | 070627 mus musculus |
| 7 | 566 | 51.6 | 233 | 1 FGF8_HUMAN | P55075 homo sapien |
| 8 | 554.5 | 50.5 | 268 | 1 FGF8_MOUSE | P37237 mus musculus |
| 9 | 194 | 17.7 | 194 | 1 FGF7_HUMAN | P21781 homo sapien |
| 10 | 193 | 17.6 | 194 | 1 FGF7_MOUSE | P36363 mus musculus |
| 11 | 193 | 17.6 | 194 | 1 FGF7_SHEEP | P48808 ovis aries |
| 12 | 192 | 17.5 | 194 | 1 FGF7_CANFRA | P79150 canis famill |
| 13 | 190 | 17.3 | 425 | 1 L736_CABEL | Q11184 caenorhabdi |
| 14 | 188.5 | 17.2 | 194 | 1 FGF7_PIG | Q9n190 sus scrofa |
| 15 | 187 | 17.0 | 194 | 1 FGF7_RAT | Q02195 rattus norv |
| 16 | 187 | 16.2 | 209 | 1 FGF4_MOUSE | 035565 mus musculus |
| 17 | 172 | 15.7 | 194 | 1 FGF4_CHICK | P48804 gallus gall |
| 18 | 172 | 15.7 | 208 | 1 FGF9_HUMAN | P31371 homo sapien |
| 19 | 172 | 15.7 | 208 | 1 FGF9_MOUSE | P54130 mus musculus |
| 20 | 172 | 15.7 | 208 | 1 FGF9_RAT | P36363 rattus norv |
| 21 | 171.5 | 15.6 | 155 | 1 FGF1_MOUSE | P10935 mus musculus |
| 22 | 170.5 | 15.5 | 206 | 1 FGF4_HUMAN | P08620 homo sapien |
| 23 | 169.5 | 15.5 | 155 | 1 FGF1_MOUSE | P34004 mesocricetu |
| 24 | 168.5 | 15.4 | 192 | 1 FGF1_PIG | P20002 sus scrofa |
| 25 | 167.5 | 15.3 | 192 | 1 FGF1_XENLA | P48806 xenopus lae |
| 26 | 166.5 | 15.2 | 155 | 1 FGF1_HUMAN | P05230 homo sapien |
| 27 | 165 | 15.0 | 209 | 1 FGF9_XENLA | Q91875 xenopus lae |
| 28 | 164 | 14.9 | 211 | 1 FGF8_HUMAN | Q09895 homo sapien |
| 29 | 160 | 14.6 | 208 | 1 FGF4_HUMAN | O15520 homo sapien |
| 30 | 159.5 | 14.5 | 158 | 1 FGF1_BOVIN | P03968 bos taurus |
| 31 | 159.5 | 14.5 | 158 | 1 FGF2_CHICK | P48800 gallus gall |
| 32 | 159.5 | 14.5 | 207 | 1 FGF6_RAT | O54769 rattus norv |
| 33 | 159 | 14.5 | 187 | 1 FGF4_XENLA | P48805 xenopus lae |

ALIGNMENTS

| RESULT 1 | FGF1_HUMAN | STANDARD; | PRT; | 207 AA. |
|----------|--|-----------|------|---------------------|
| AC | 076093; | | | |
| DT | 15-JUL-1999 (Rel. 38, Created) | | | |
| DT | 15-JUL-1999 (Rel. 38, Last sequence update) | | | |
| DT | 15-JUN-2002 (Rel. 41, Last annotation update) | | | |
| DE | Fibroblast growth factor-18 precursor (FGF-18) (zFGF5). | | | |
| CN | FGF18. | | | |
| OS | Homo sapiens (Human). | | | |
| OC | Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi; | | | |
| OC | Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo. | | | |
| OX | NCBI_Taxid=9606; | | | |
| RN | [1] | | | |
| RP | SEQUENCE FROM N.A. | | | |
| RX | MEDLINE=98414622; PubMed=9742123; | | | |
| RA | Hu M.C.-T., Qiu W.R., Wang Y.-P., Hill D., Ring B.D., Scully S., | | | |
| RA | Bolon B., Derose M., Luethy R., Simonet W.S., Arakawa T., | | | |
| RA | Danilenko D.M.; | | | |
| RT | "FGF-18, a novel member of the fibroblast growth factor family, | | | |
| RT | stimulates hepatic and intestinal proliferation."; | | | |
| RT | Mol. Cell. Biol. 18:6063-6074(1998). | | | |
| RN | [2] | | | |
| RP | SEQUENCE FROM N.A. | | | |
| RX | TISSUE=Lung; | | | |
| RA | MEDLINE=98325019; PubMed=9660775; | | | |
| RA | Obayashi N., Hoshikawa M., Kimura S., Yamasaki M., Fukui S., Ito N.; | | | |
| RT | "Structure and expression of the mRNA encoding a novel fibroblast | | | |
| RT | growth factor, FGF-18."; | | | |
| RT | J. Biol. Chem. 273:18161-18164(1998). | | | |
| RN | [3] | | | |
| RP | SEQUENCE FROM N.A. | | | |
| RA | Deisher T., Conklin D., Raymond F., Bukowski T., Holderman S., | | | |
| RA | Hansen B., Sheppard P., O'Hara P.; | | | |
| RT | "Homo sapiens homologue of fibroblast growth factor."; | | | |
| RT | Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases. | | | |
| RN | [4] | | | |
| RP | SEQUENCE FROM N.A. | | | |
| RA | TISSUE=Ovary; | | | |
| RA | Straussberg R.; | | | |
| CC | Submitted (APR-2001) to the EMBL/GenBank/DBJ databases. | | | |
| CC | "FUNCTION: STIMULATES HEPATIC AND INTESTINAL PROLIFERATION. | | | |
| CC | "SUBCELLULAR LOCATION: Secreted (By similarity)." ; | | | |
| CC | "SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY. | | | |
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| CC | or send an email to license@sib-sib.ch). | | | |
| CC | ----- | | | |
| DR | EMBL; AF075292; AAC62240.1; - | | | P70492 rattus norv |
| DR | EMBL; AB007422; BAA31986.1; - | | | P03968 bos taurus |
| DR | EMBL; AF211188; AAF22977.1; - | | | P20003 ovis aries |
| | | | | P10767 homo sapien |
| | | | | P11403 mus musculus |
| | | | | O43320 mus musculus |
| | | | | P19596 gallus gall |
| | | | | P48801 gallus gall |
| | | | | P48801 gallus gall |
| | | | | P36368 xenopus lae |
| | | | | P70377 mus musculus |
| | | | | O92913 homo sapien |
| | | | | P15655 mus musculus |

DR EMBL: BC006245; AAH06245.1; -
DR HSSP: P31371; 1G82.
DR Genew; HGNC:3674; FGF18.
DR MIM; 603726; -
DR InterPro; IPR002209; HB/F-growthfact.
DR InterPro; IPR002348; IL1_HBGF.
DR Pfam; PF00167; FGF.1.
DR PRINTS; PR00262; IL1HBGF.
DR ProDom; PD000831; HB/F-growthfact; 1.
DR SMART; SM00442; FGF.1.
DR PROSITE; PS00247; HBGF_FGF.1.
DR Growth factor; Signal; Glycoprotein.
KW SIGNAL. 1 27 POTENTIAL.
FT CHAIN 28 207 FIBROBLAST GROWTH FACTOR-18.
FT CARBOHYD 39 39 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 207 AA; 23989 MW; 57F69E7B30181500 CRC64;

Query Match 100.0%; Score 1097; DB 1; Length 207;
Best Local Similarity 100.0%; Pred. No. 3.9e-96;
Matches 207; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MYSAPSACTCICLHFLLLCFQOVYVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
1 MYSAPSACTCICLHFLLLCFQOVYVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
Db 1 TSGKHIOVIGRRISARGEDGDKTAQLIVETDFGSOVRIGKETEFLCMNRKGLVGR 120
61 TSGKHIOVIGRRISARGEDGDKTAQLIVETDFGSOVRIGKETEFLCMNRKGLVGR 120
Db 61 TSGKHIOVIGRRISARGEDGDKTAQLIVETDFGSOVRIGKETEFLCMNRKGLVGR 120
QY 121 DGTSGKCVFLEKYLENNYTLMSAKYSGWYVGTGKGRPRKGPRTRENQDVHFMKRYPK 180
121 DGTSGKCVFLEKYLENNYTLMSAKYSGWYVGTGKGRPRKGPRTRENQDVHFMKRYPK 180
Db 121 DGTSGKCVFLEKYLENNYTLMSAKYSGWYVGTGKGRPRKGPRTRENQDVHFMKRYPK 180
QY 181 GQPELOKPKFYTTVTKRSRRIRPTHPA 207
181 GQPELOKPKFYTTVTKRSRRIRPTHPA 207
Db 181 GQPELOKPKFYTTVTKRSRRIRPTHPA 207

RESULT 2
FGF1_MOUSE
ID FGF1_MOUSE STANDARD; PRT; 207 AA.
AC 089101;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Fibroblast growth factor-18 precursor (FGF-18) (zFGF5).
GN FGF18.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_Taxid=10090;
RN 11
RP SEQUENCE FROM N.A.
RX MEDLINE-98414622; PubMed-9742123;
RA Hu M.C.-T., Qiu W.R., Wang Y.-P., Hill D., Ring B.D., Scully S.,
RA Bolton B., Derose M., Luehly R., Simonet W.S., Aakawa T.,
RA Danilenko D.M.;
RT "FGF-18, a novel member of the fibroblast growth factor family,
RT stimulates hepatic and intestinal proliferation.";
RL Mol. Cell. Biol. 18:6063-6074(1998).
RN 12
RP SEQUENCE FROM N.A.
RC TISSUE-Embryo;
RX MEDLINE-98325019; PubMed-9660775;
RA Ohbayashi N., Hoshikawa M., Kimura S., Yamasaki M., Fukui S., Ito N.;
RT "Structure and expression of the mRNA encoding a novel fibroblast
RT growth factor, FGF-18.";
RL J. Biol. Chem. 273:18161-18164(1998).
RN 13
RP SEQUENCE FROM N.A.
RA Deisher T., Conklin D., Raymond F., Bukowski T., Holderman S.,
RA Hansen B., Sheppard P., O'Hara P.;

RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.
CC - FUNCTION: STIMULATES HEPATIC AND INTESTINAL PROLIFERATION.
CC - SUBCELLULAR LOCATION: Secreted (By similarity).
CC - SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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CC -----
DR EMBL: AF075291; AAC62239.1; -
DR EMBL: AB004639; BAA31980.1; -
DR EMBL: AF211187; AAF22976.1; -
DR HSSP: P31371; 1G82.
DR MGD; MGI:1277980; Fgf18.
DR InterPro; IPR002209; HB/F-growthfact.
DR InterPro; IPR002348; IL1_HBGF.
DR Pfam; PF00167; FGF.1.
DR PRINTS; PR00262; IL1HBGF.
DR ProDom; PD000831; HB/F-growthfact; 1.
DR SMART; SM00442; FGF.1.
DR PROSITE; PS00247; HBGF_FGF.1.
DR Growth factor; Signal; Glycoprotein.
KW SIGNAL. 1 27 POTENTIAL.
FT CHAIN 28 207 FIBROBLAST GROWTH FACTOR-18.
FT CARBOHYD 39 39 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 207 AA; 23920 MW; CD5F987B271628B8 CRC64;

Query Match 98.5%; Score 1081; DB 1; Length 207;
Best Local Similarity 99.0%; Pred. No. 1.3e-94;
Matches 204; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MYSAPSACTCICLHFLLLCFQOVYVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
1 MYSAPSACTCICLHFLLLCFQOVYVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
Db 1 TSGKHIOVIGRRISARGEDGDKTAQLIVETDFGSOVRIGKETEFLCMNRKGLVGR 120
61 TSGKHIOVIGRRISARGEDGDKTAQLIVETDFGSOVRIGKETEFLCMNRKGLVGR 120
Db 61 TSGKHIOVIGRRISARGEDGDKTAQLIVETDFGSOVRIGKETEFLCMNRKGLVGR 120
QY 121 DGTSGKCVFLEKYLENNYTLMSAKYSGWYVGTGKGRPRKGPRTRENQDVHFMKRYPK 180
121 DGTSGKCVFLEKYLENNYTLMSAKYSGWYVGTGKGRPRKGPRTRENQDVHFMKRYPK 180
Db 121 DGTSGKCVFLEKYLENNYTLMSAKYSGWYVGTGKGRPRKGPRTRENQDVHFMKRYPK 180
QY 181 GQPELOKPKFYTTVTKRSRRIRPTHP 206
181 GQPELOKPKFYTTVTKRSRRIRPTHP 206
Db 181 GQPELOKPKFYTTVTKRSRRIRPTHP 206

RESULT 3
FGF1_RAT
ID FGF1_RAT STANDARD; PRT; 207 AA.
AC 088182;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)
DE Fibroblast growth factor-18 precursor (FGF-18).
GN FGF18.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_Taxid=10116;
RN 11
RP SEQUENCE FROM N.A.
RX STRAIN-Wistar; TISSUE-Embryo;
RX MEDLINE-98325019; PubMed-9660775;
RA Ohbayashi N., Hoshikawa M., Kimura S., Yamasaki M., Fukui S., Ito N.;
RT "Structure and expression of the mRNA encoding a novel fibroblast
RT growth factor, FGF-18.";

```

RL J. Biol. Chem. 273:18161-18164(1998).
CC -1- FUNCTION: STIMULATES HEPATIC AND INTESTINAL PROLIFERATION.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: MAINLY EXPRESSED IN THE LUNG. NOT DETECTED IN
CC BRAIN, HEART, LIVER, KIDNEY, AND SMALL INTESTINE.
CC -1- DEVELOPMENTAL STAGE: EXPRESSED IN SEVERAL DISCRETE REGIONS AT
CC EMBRYONIC DAYS 14.5 AND 19.5 BUT NOT 10.5. AT E14.5, EXPRESSED IN
CC ISTHUS, PITUITARY, SPINAL CORD, TONGUE, IMPERFORATE DISK,
CC DORSAL ROOT GANGLION AND PELVIS. AT E19.5, EXPRESSED IN LUNG AND
CC ANTERIOR PITUITARY.
CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC -----
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CC -----
DR EMBL: AB004638; BAA31979.1; -.
DR HSSP: P31371; I682.
DR InterPro: IPR002209; HB/F-growthfact.
DR InterPro: IPR002348; IL1_HBGF.
DR Pfam: PF00167; FGF; 1.
DR PRINTS: PR00262; IL1HBGF.
DR PRODOM: PD000831; HB/F-growthfact; 1.
DR SMART: SM00442; FGF; 1. HBGF.
DR PROSITE: PS00247; HBGF_FGF; 1.
KW Growth factor; Signal; Glycoprotein.
FT SIGNAL 1 27 FIBROBLAST GROWTH FACTOR-18.
FT CHAIN 28 207 POTENTIAL.
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 207 AA; 23950 MM; D90EDDV/B271628B8 CRC64;

Query Match 98.5%; Score 1081; DB 1; Length 207;
Best Local Similarity 99.0%; Pred. No. 1.3e-94;
Matches 204; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MYSPASCTCLCHFLILCFQVOYLVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
DB 1 MYSPASCTCLCHFLILCFQVOYLVAEENVDFRIHVENOTRARDVSRKQLRYOLYSR 60
QY 61 TSGKHIOVLGRISARGEDGDKYAQLIVETDFGSOVRIGKETEFYLCMNRKGLVGR 120
DB 61 TSGKHIOVLGRISARGEDGDKYAQLIVETDFGSOVRIGKETEFYLCMNRKGLVGR 120
QY 121 DGTSGKECVLEKYLENNYALMSAKYSGWYVFTKGRPKRGKTRRENOOVHMKRYPK 180
DB 121 DGTSGKECVLEKYLENNYALMSAKYSGWYVFTKGRPKRGKTRRENOOVHMKRYPK 180
QY 181 GPELDQKPFKTYTVTKRSRIRPTHP 206
DB 181 GPELDQKPFKTYTVTKRSRIRPTHP 206

RESULT 4
FGF8_CHICK STANDARD; PRT; 214 AA.
ID FGF8_CHICK
AC 090722;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 01-NOV-1997 (Rel. 35, Last annotation update)
DE Fibroblast growth factor-8 precursor (FGF-8) (HBGF-8).
GN FGF8.
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A.

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RC STRAIN=White leghorn;
RX MEDLINE=96232288; PubMed=8674413;
RA Vogel A., Rodriguez C., Izpisua-Belmonte J.C.;
RT "Involvement of Fgf-8 in initiation, outgrowth and patterning of the
RL vertebrate limb.";
CC Development 122:1737-1750(1996).
CC -1- FUNCTION: INVOLVED IN INITIATION, OUTGROWTH AND PATTERNING OF THE
CC LIMBS.
CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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CC -----
DR EMBL: U55189; AAB06713.1; -.
DR HSSP: P31371; I682.
DR InterPro: IPR002209; HB/F-growthfact.
DR Pfam: PF00167; FGF; 1.
DR PRODOM: PD000831; HB/F-growthfact; 1.
DR SMART: SM00442; FGF; 1.
DR PROSITE: PS00247; HBGF_FGF; 1.
KW Growth factor; Mitogen; Glycoprotein; Signal.
FT SIGNAL 1 22 POTENTIAL.
FT CHAIN 23 214 FIBROBLAST GROWTH FACTOR-8.
FT CARBOHYD 31 31 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CARBOHYD 207 207 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 214 AA; 24806 MM; BE5F3C013A2BC34 CRC64;

Query Match 52.3%; Score 574; DB 1; Length 214;
Best Local Similarity 56.4%; Pred. No. 6.5e-47;
Matches 110; Conservative 33; Mismatches 46; Indels 6; Gaps 3;

QY 13 LHFLILCFQVOYLVAEENVDFRIHVENOTRARDVSRKQLRYOLYSRTSGKHIOVLGR 71
DB 13 LHFLILCFQVOYLVAEENVDFRIHVENOTRARDVSRKQLRYOLYSRTSGKHIOVLGR 71
QY 72 RISARGEDGDKYAQLIVETDFGSOVRIGKETEFYLCMNRKGLVGRPKDTSKECVFIE 131
DB 72 RISARGEDGDKYAQLIVETDFGSOVRIGKETEFYLCMNRKGLVGRPKDTSKECVFIE 131
QY 132 KYLENNYALMSAKYSGWYVFTKGRPKRGKTRRENOOVHMKRYPK---QPELDQK 187
DB 132 KYLENNYALMSAKYSGWYVFTKGRPKRGKTRRENOOVHMKRYPK---QPELDQK 187
QY 188 PFKTYTVTKRSRIR 202
DB 188 PFKTYTVTKRSRIR 202
QY 192 EFLNYPFRNRSKRTR 206
DB 192 EFLNYPFRNRSKRTR 206

RESULT 5
FGF8_HUMAN STANDARD; PRT; 216 AA.
ID FGF8_HUMAN
AC 060258;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 15-JUN-2002 (Rel. 41, Last annotation update)
DE Fibroblast growth factor-17 precursor (FGF-17).
GN FGF17.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Fetal brain;
RX MEDLINE=98183421; PubMed=9514906;
RA Hoshikawa M., Ohbayashi N., Yonamine A., Konishi M., Ozaki K.,
RA Fukui S., Itoh N.;

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RT "Structure and expression of a novel fibroblast growth factor, FGF-17,
RT preferentially expressed in the embryonic brain."
RL Biochem. Biophys. Res. Commun. 244:187-191(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA Rieder M.J., Braun A.C., Montoya M.A., Chung M.-W., Nguyen C.P.,
RA Nguyen D.A., Livingston R.J., Poel C.L., Robertson P.D.,
RA Schackwitz W.S., Sherwood J.K., Wiltrak L.A., Nickerson D.A.;
RL Submitted (MAR-2002) to the EMBL/GenBank/DBJ databases.
CC -1- FUNCTION: MAY BE A SIGNALING MOLECULE IN THE INDUCTION AND
CC PATTERNING OF THE EMBRYONIC BRAIN.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: PREFERENTIALLY EXPRESSED IN THE EMBRYONIC
CC BRAIN.
CC -1- DEVELOPMENTAL STAGE: DETECTED IN EMBRYOS AT E14.5, BUT NOT AT
CC E10.5 AND E19.5. PREFERENTIALLY EXPRESSED IN THE NEUROEPITHELIA OF
CC THE ISTHMUS AND SEPTUM OF THE EMBRYONIC BRAIN AT E14.5.
CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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CC -----
DR EMBL: AB009249; BAA25429.1; -
DR EMBL: AF497475; AAM09570.1; -
DR HSSP: P31371; 1G82.
DR Genew: HGNC:3673; FGF17.
DR MIM: 603725; -
DR InterPro: IPR002209; HB/F_growthfact.
DR InterPro: IPR002348; IIL_HBGF.
DR Pfam: PF00167; FGF; 1.
DR PRINTS: PR00262; IILHBGF.
DR PRODOM: PD000831; HB/F_growthfact; 1.
DR SMART: SM00442; FGF; 1.
DR PROSITE: PS00247; HBGF_FGF; 1.
DR Growth factor: Signal.
FT SIGNAL 1 22 POTENTIAL.
FT CHAIN 23 216 FIBROBLAST GROWTH FACTOR-17.
FT CAROHD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 216 AA; 24891 MW; 2EE02886/5220F4C CRC64;

Query Match 52.1%; Score 571; DB 1; Length 216;
Best Local Similarity 54.1%; Pred. No. 1.3e-46;
Matches 112; Conservative 38; Mismatches 39; Indels 18; Gaps 4;

QY 11 LCLHFLLCFOYOVVAEEN---VDFRIHVENOTRARDVSRKQLRLYQLYSRTSGKHIO 67
DB 11 LCLHFLLCFOYOVVAEEN---VDFRIHVENOTRARDVSRKQLRLYQLYSRTSGKHIO 67
QY 68 VLGRISANGEGDKYAOILVETDFPGSOVRIKKGTEFEYLCKMNRKGLVGPDSKSC 127
DB 68 VLGRISANGEGDKYAOILVETDFPGSOVRIKKGTEFEYLCKMNRKGLVGPDSKSC 127
QY 128 VIEKYLENNYATLMSAKTSGYVGFTRKGRPKRGPRTRENODVHFMRKRYKQ----- 182
DB 128 VIEKYLENNYATLMSAKTSGYVGFTRKGRPKRGPRTRENODVHFMRKRYKQ----- 182
QY 183 -PELOKPFKY-----TTVTKRSRRIRP 203
DB 183 -PELOKPFKY-----TTVTKRSRRIRP 203
QY 188 HAERKQKFEFVGSAPTRRTKTRRPOP 214
DB 188 HAERKQKFEFVGSAPTRRTKTRRPOP 214

RESULT 6
EGFH_MOUSE STANDARD; PRT; 216 AA.
AC 070627;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 16-OCT-2001 (Rel. 40, Last annotation update)

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DE Fibroblast growth factor-17 precursor (FGF-17).
GN FGF17.
OS Mus musculus (Mouse), and
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090, 10116;
RN [1]
RP SEQUENCE FROM N.A.
RA STRAIN=Wistar; TISSUE=Embryo;
RA MEDLINE=98183421; PubMed=9514906;
RA Hoshikawa M., Ohbayashi N., Yonamine A., Konishi M., Ozaki K.,
RA Fukui S., Itoh N.;
RT "Structure and expression of a novel fibroblast growth factor, FGF-17,
RT preferentially expressed in the embryonic brain."
RL Biochem. Biophys. Res. Commun. 244:187-191(1998).
CC -1- FUNCTION: MAY BE A SIGNALING MOLECULE IN THE INDUCTION AND
CC PATTERNING OF THE EMBRYONIC BRAIN.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: EXPRESSED IN EMBRYONIC BRAIN, MOSTLY IN THE
CC ISTHMUS CEREBELLAR NEUROEPITHELIUM AND SEPTUM NEUROEPITHELIUM, AND
CC IN ALL ADULT TISSUES.
CC -1- DEVELOPMENTAL STAGE: IN RAT, EXPRESSED AT HIGH LEVEL IN THE BRAIN
CC EMBRYO AT E14.5. EXPRESSED AT LOWER LEVEL IN THE BRAIN EMBRYO AT
CC E10.5 AND E19.5.
CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC -----
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CC -----
DR EMBL: AB009250; BAA25430.1; -
DR EMBL: AB008682; BAA25426.1; -
DR HSSP: P31371; 1G82.
DR MGd: MG1:1202401; Fgf17.
DR InterPro: IPR002209; HB/F_growthfact.
DR InterPro: IPR002348; IIL_HBGF.
DR Pfam: PF00167; FGF; 1.
DR PRINTS: PR00262; IILHBGF.
DR PRODOM: PD000831; HB/F_growthfact; 1.
DR SMART: SM00442; FGF; 1.
DR PROSITE: PS00247; HBGF_FGF; 1.
DR Growth factor: Signal.
FT SIGNAL 1 22 POTENTIAL.
FT CHAIN 23 216 FIBROBLAST GROWTH FACTOR-17.
FT CAROHD 137 137 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 216 AA; 24924 MW; 2EE94BDF/5220F4C CRC64;

Query Match 51.6%; Score 566; DB 1; Length 216;
Best Local Similarity 54.4%; Pred. No. 3.7e-46;
Matches 111; Conservative 37; Mismatches 38; Indels 18; Gaps 4;

QY 11 LCLHFLLCFOYOVVAEEN---VDFRIHVENOTRARDVSRKQLRLYQLYSRTSGKHIO 67
DB 11 LCLHFLLCFOYOVVAEEN---VDFRIHVENOTRARDVSRKQLRLYQLYSRTSGKHIO 67
QY 12 LCLHFLLCFOYOVVAEEN---VDFRIHVENOTRARDVSRKQLRLYQLYSRTSGKHIO 67
DB 12 LCLHFLLCFOYOVVAEEN---VDFRIHVENOTRARDVSRKQLRLYQLYSRTSGKHIO 67
QY 68 VLGRISANGEGDKYAOILVETDFPGSOVRIKKGTEFEYLCKMNRKGLVGPDSKSC 127
DB 68 VLGRISANGEGDKYAOILVETDFPGSOVRIKKGTEFEYLCKMNRKGLVGPDSKSC 127
QY 128 VIEKYLENNYATLMSAKTSGYVGFTRKGRPKRGPRTRENODVHFMRKRYKQ----- 182
DB 128 VIEKYLENNYATLMSAKTSGYVGFTRKGRPKRGPRTRENODVHFMRKRYKQ----- 182
QY 183 -PELOKPFKY-----TTVTKRSRRIRP 200
DB 183 -PELOKPFKY-----TTVTKRSRRIRP 200
QY 188 HAERKQKFEFVGSAPTRRTKTRR 211
DB 188 HAERKQKFEFVGSAPTRRTKTRR 211

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RESULT 7
FGF8_HUMAN          STANDARD;          PRT;          233 AA.
AC   P55075; O14915; O15766;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   16-OCT-2001 (Rel. 40, Last annotation update)
DE   Androgen-induced growth factor precursor (AIGF) (HBGF-8) (Fibroblast
DE   growth factor-8) (FGF-8).
GN   FGF8 OR AIGF.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX   NCBI_TaxId=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Prostate;
RA   Ghosh A.K., Shankar D.B., Shackelford G.M., Miller G., Zheng J.,
RA   MacArthur C.A., Roy-Burman P.;
RL   Submitted (FEB-1996) to the EMBL/GenBank/DBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A. (FGF-8A).
RX   MEDLINE=9525551; PubMed=7737407;
RA   Tanaka A., Miyamoto K., Matsuo H., Matsumoto K., Yoshida H.;
RT   "Human androgen-induced growth factor in prostate and breast cancer
RT   cells: its molecular cloning and growth properties.";
RL   FEBS Lett. 363:226-230(1995).
RN   [3]
RP   SEQUENCE FROM N.A. (FGF-8A).
RA   Payson R.A., Wu J., Liu Y., Chiu I.M.;
RL   Submitted (JAN-1996) to the EMBL/GenBank/DBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.
RC   TISSUE=Placenta;
RX   MEDLINE=96299767; PubMed=8661131;
RA   Gemel J., Gorry M., Ehrlich G.D., MacArthur C.A.;
RT   "Structure and sequence of human FGF8.";
RL   Genomics 35:253-257(1996).
RN   [5]
RP   SEQUENCE FROM N.A.
RA   Tanaka S.;
RL   Submitted (MAY-1998) to the EMBL/GenBank/DBJ databases.
RN   [6]
RP   SEQUENCE OF 1-11 FROM N.A.
RX   MEDLINE=96292226; PubMed=8700553;
RA   Payson R.A., Wu J., Liu Y., Chiu I.-M.;
RT   "The human FGF-8 gene localizes on chromosome 10q24 and is subjected
RT   to induction by androgen in breast cancer cells.";
RL   Oncogene 13:47-53(1996).
CC   -1- FUNCTION: STIMULATES GROWTH OF THE CELLS IN AN AUTOCRINE MANNER.
CC   MEDIATES HORMONAL ACTION ON THE GROWTH OF CANCER CELLS.
CC   -1- ALTERNATIVE PRODUCTS: AT LEAST 4 ISOFORMS: FGF-8A, FGF-8B, FGF-8P
CC   AND FGF-8E (SHOWN HERE); ARE PRODUCED BY ALTERNATIVE SPLICING.
CC   -1- DEVELOPMENTAL STAGE: IN ADULTS EXPRESSION IS RESTRICTED TO THE
CC   GONADS.
CC   -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC   -----
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CC   or send an email to license@isb-sib.ch).
CC   -----
DR   EMBL; U46213; AAB40955.1; -
DR   EMBL; U46212; AAB40954.1; -
DR   EMBL; U46211; AAB40953.1; -
DR   EMBL; S78466; AAB34255.1; -
DR   EMBL; S78465; AAB34255.1; JOINED.
DR   EMBL; S78463; AAB34255.1; JOINED.
DR   EMBL; S78464; AAB34255.1; JOINED.
DR   EMBL; S78465; AAB34255.1; JOINED.
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DR   EMBL; D38752; BAA22527.1; -
DR   EMBL; U36223; AAB17893.1; -
DR   EMBL; U36228; AAB17894.1; -
DR   EMBL; U36225; AAB17894.1; JOINED.
DR   EMBL; U36226; AAB17894.1; JOINED.
DR   EMBL; U36227; AAB17894.1; JOINED.
DR   EMBL; U47011; AAC50783.1; -
DR   EMBL; U47009; AAC50783.1; JOINED.
DR   EMBL; U47010; AAC50783.1; JOINED.
DR   EMBL; U47011; AAC50784.1; -
DR   EMBL; U47009; AAC50784.1; JOINED.
DR   EMBL; U47010; AAC50784.1; JOINED.
DR   EMBL; U47011; AAC50785.1; -
DR   EMBL; U47009; AAC50785.1; JOINED.
DR   EMBL; U47010; AAC50785.1; JOINED.
DR   EMBL; U47011; AAC50782.1; -
DR   EMBL; U47009; AAC50782.1; JOINED.
DR   EMBL; U47010; AAC50782.1; JOINED.
DR   EMBL; A8014615; BAA28605.1; -
DR   EMBL; U56978; AAB03787.1; -
DR   HSSP; P31371; 1G82; -
DR   Genew; HGNC:3686; FGF8.
DR   MIM; 600483; -
DR   InterPro; IPR002209; HB/F_growthfact.
DR   Pfam; PF00167; FGF; 1.
DR   ProDom; PD000831; HB/F_growthfact; 1.
DR   SMART; SM00442; FGF; 1.
DR   PROSITE; PS00247; HBGF_FGF; 1.
KW   Growth factor; Mitogen; Alternative splicing; Signal.
FT   SIGNAL 1 22
FT   CHAIN 23 233
FT   CARBOHYD 155 155
FT   VARSPIC 24 51
FT   VARSPIC 24 52
FT   VARSPIC 52 52
FT   VARSPIC 52 52
SQ   SEQUENCE 233 AA; 26525 MW; 4C1EAF932A3A211D CRC64;
Query Match 51.68; Score 566; DB 1; Length 233;
Best Local Similarity 53.18; Pred. No. 4e-46;
Matches 111; Conservative 32; Mismatches 48; Indels 18; Gaps 3;
QY 1 MYSAPACTGCLHFLHLCFOYQ-----VIVAEENVDPRI-----HYENQTRA 43
DB 1 MGSPRSALSCILHLHLVLVQLQAOEGPGRGRLASLFRAGPEPGVSOQHVRQSLV 60
QY 44 RDVSRKQLRLYOLYSTRSGKHIOVL-CGRISARGEDGDXYAOLVETDFGSGVRLTKG 102
DB 61 TDQLSRLLIRTYOLYSTRSGKHIOVLANKRINMAAEQDPPAKLIVETDFGSRVRYRGA 120
QY 103 ETEFYLCMNKRGKLVGKPDGTSKECVIEKVLNNYNTALMSAKYSGWYVGFTRKGRPRKG 162
DB 121 ETGYLCIMNKKGKLIANSNGKDCVETELVNNYNTALONAKYEGWYMAFTRKGRPRKG 180
QY 163 PKTRNQDQVHFMRKRYKGPDELQKPRKY 191
DB 181 SKTRQHQREVFHMKRILPRGHHTTQSLRF 209
RESULT 8
FGF8_MOUSE          STANDARD;          PRT;          268 AA.
AC   P37237;
DT   01-OCT-1994 (Rel. 30, Created)
DT   01-OCT-1994 (Rel. 30, Last sequence update)
DT   15-JUN-2002 (Rel. 41, Last annotation update)
DE   Androgen-induced growth factor precursor (AIGF) (HBGF-8) (Fibroblast
DE   growth factor-8) (FGF-8).
GN   FGF8 OR AIGF.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathia; Muridae; Murinae; Mus.
OX   NCBI_TaxId=10090;
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| Query Match | Best Local Similarity | 50.5%; | Score 554.5; | DB 1; | Length 268; |
|--------------|--|----------------|--------------|--|-------------|
| Matches 111; | Conservative 34; | Mismatches 46; | Indels 53; | Gaps 3; | |
| 1 | MYSAAPSACTCLGHLFLLCFOVQVIVA-----EENVDF----- | 33 | | | |
| RP | SEQUENCE FROM N.A., AND PARTIAL SEQUENCE. | | | | |
| RX | MEDLINE=93028380; PubMed=1409588; | | | | |
| RA | Tanaka A., Miyamoto K., Minamoto N., Takeda M., Sato B., Matsuo H., | | | | |
| RA | Matsumoto K.; | | | | |
| RT | "Cloning and characterization of an androgen-induced growth factor | | | | |
| RT | essential for the androgen-dependent growth of mouse mammary | | | | |
| RT | carcinoma cells."; | | | | |
| RL | Proc. Natl. Acad. Sci. U.S.A. 89:8928-8932(1992). | | | | |
| RN | [2] | | | | |
| RP | SEQUENCE FROM N.A. | | | | |
| RC | TISUE-Breast carcinoma; | | | | |
| RA | MEDLINE=95191029; PubMed=7684899; | | | | |
| RA | MacArthur C.A., Shankar D.B., Shackelford G.M.; | | | | |
| RT | "Fgf-8, activated by proviral insertion, cooperates with the Wnt-1 | | | | |
| RT | transgene in murine mammary tumorigenesis."; | | | | |
| RL | J. Virol. 69:2501-2507(1995). | | | | |
| RN | [3] | | | | |
| RP | SEQUENCE FROM N.A. | | | | |
| RA | MEDLINE=96082880; PubMed=7583127; | | | | |
| RA | Mahmood R., Bresnick J., Hornbruch A., Mahony C., Morton N., | | | | |
| RA | Colquhoun K., Martin P., Lumsden A., Dickson C., Mason I.; | | | | |
| RT | A role for FGF-8 in the initiation and maintenance of vertebrate | | | | |
| RT | limb bud outgrowth."; | | | | |
| RL | Curr. Biol. 5:797-806(1995). | | | | |
| CC | -1- FUNCTION: STIMULATES GROWTH OF THE CELLS IN AN AUTOCRINE MANNER. | | | | |
| CC | MEDIATES HORMONAL ACTION ON THE GROWTH OF CANCER CELLS. COOPERATES | | | | |
| CC | WITH WNT-1 IN MOUSE MAMMARY TUMOR VIRUS-INDUCED MURINE MAMMARY | | | | |
| CC | TUMORIGENESIS. | | | | |
| CC | -1- ALTERNATIVE PRODUCTS: AT LEAST 3 ISOFORMS: FGF-8C (SHOWN HERE), | | | | |
| CC | FGF-8B AND FGF-8A; ARE PRODUCED BY ALTERNATIVE SPLICING. | | | | |
| CC | -1- TISSUE SPECIFICITY: ABSENT IN NORMAL MAMMARY GLANDS AND DETECTED | | | | |
| CC | ONLY IN ADULT TESTIS AND OVARY AND IN WIDEGESTATIONAL EMBRYOS. | | | | |
| CC | -1- INDUCTION: BY ANDROGENS. | | | | |
| CC | -1- PTM: THE N-TERMINUS IS BLOCKED. | | | | |
| CC | -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY. | | | | |
| CC | ----- | | | | |
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| CC | ----- | | | | |
| DR | EMBL; D12483; BAA02051.1; - | | | | |
| DR | EMBL; D12482; BAA02050.1; - | | | | |
| DR | EMBL; 018673; AAA65387.1; - | | | | |
| DR | EMBL; Z48746; CAA88637.1; - | | | | |
| DR | HSSP; P31371.1; 1G82. | | | | |
| DR | MGI; MGI:99604; Fgf8. | | | | |
| DR | InterPro: IPR002209; HB/F-growthfact. | | | | |
| DR | Pfam; PF00167; FGF; 1. | | | | |
| DR | ProDom; PD000831; HB/F-growthfact; 1. | | | | |
| DR | SMART; SM00442; FGF; 1. | | | | |
| DR | PROSITE; PS00247; HBGF_FGF; 1. | | | | |
| KW | Growth factor; Mitogen; Alternative splicing; signal. | | | | |
| FT | SIGNAL | 1 | 22 | POTENTIAL | |
| FT | CHAIN | 23 | 268 | ANDROGEN-INDUCED GROWTH FACTOR | |
| FT | MOD_RRS | 23 | 23 | PYRROLIDONE CARBOXYLIC ACID (POTENTIAL). | |
| FT | CARBOHYD | 60 | 60 | N-LINKED (GLCNAC. . .) (POTENTIAL). | |
| FT | CARBOHYD | 190 | 190 | N-LINKED (GLCNAC. . .) (POTENTIAL). | |
| FT | VARSPLIC | 24 | 87 | VRSAQRGPGAGNPADLIGGHEHDFEGGRSRGKFTNP | |
| FT | | | | APNPEEGSKREORNSVLYKTKR -> VYVQSSFNPTQ | |
| FT | | | | (IN ISOFORM FGF-8B). | |
| FT | VARSPLIC | 24 | 87 | MISSING (IN ISOFORM FGF-8A). | |
| SO | SEQUENCE | 268 AA; | 30419 MW; | 3330A9F342AD7109 CRC64; | |

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Db      1 MGSFSAALSCLLHLVLVLQAOVBSAAQKRGCGAGNPADVLQCGHEDRPFQGRSAAKN 60
Qy      34 -----RIHVENOTRADVDYSRKOLRLYOLYSRTSGKHIOY 68
Db      61 FTFNPAPNYDEESKKEQRODVLPEKVTQHRHREQSLVTDLSRLRLIFRYQLYSPFSKGHVY 120
Qy      69 I-GRRISAGCGEGDKXAOVLVEFDPPGSOVRKIGKRETEYLICNNRKGKLVGRKDGSKEK 127
Db      121 LANKRIMAAEGBDPPAKLIVETDFGSRVRGATGLYLCNNKKGKLIASNGKGC 180
Qy      128 VEIEVLENNYATLMSAKYSGWYVGFTKKGRPKRGKRTRENODVHFMRKRYPKQPELOK 187
Db      181 VETETYLENNYATLQAKAYEGWYMAFTBKGRPRKSGKSTQHOREVHFMRRLPRGHHTTQ 240
Qy      188 PEKY 191
Db      241 SLRF 244

RESULT 9
RGF7_HUMAN
ID      RGF7_HUMAN          STANDARD:      PRT;      194 AA.
AC      P21781.
DT      01-MAY-1991 (Rel. 18, Created)
DT      01-MAY-1991 (Rel. 18, Last sequence update)
DT      15-JUN-2002 (Rel. 41, Last annotation update)
DE      Keratinocyte growth factor precursor (KGF) (Fibroblast growth factor-
DE      7) (FGF-7) (HBGF-7).
CN      FGF7 OR KGF.
OS      Homo sapiens (Human).
OC      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX      NCBI_Taxid=9606;
RN      [1]
RP      SEQUENCE FROM N.A., AND SEQUENCE OF 32-50.
RX      MEDLINE=89368897; PubMed=2475908;
RA      Finch P.W., Rubin J.S., Miki T., Ron D., Aaronson S.A.;
RT      "Human KGF is FGF-related with properties of a paracrine effector of
RT      epithelial cell growth.";
RT      Science 245:752-755(1989).
RN      [2]
RP      SEQUENCE FROM N.A.
RX      MEDLINE=92152720; PubMed=1664700;
RA      Aaronson S.A., Bottaro D.P., Miki T., Ron D., Finch P.W.,
RT      Fleming T.P., Alm J., Taylor W.G., Rubin J.S.;
RT      "Keratinocyte growth factor. A fibroblast growth factor family member
RT      with unusual target cell specificity.";
RT      Ann. N.Y. Acad. Sci. 638:62-77(1991).
RN      [3]
RP      SEQUENCE FROM N.A.
RX      MEDLINE=92152720; PubMed=1664700;
RX      MEDLINE=89128865; PubMed=2915979;
RA      Rubin J.S., Osada H., Finch P.W., Taylor W.G., Rudikoff S.,
RA      Aaronson S.A.;
RT      "Purification and characterization of a newly identified growth
RT      factor specific for epithelial cells.";
RT      Proc. Natl. Acad. Sci. U.S.A. 86:802-806(1989).
CC      -1- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE
CC      MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
CC      -1- SUBCELLULAR LOCATION: EPITHELIAL CELL.
CC      -1- TISSUE SPECIFICITY: EPITHELIAL CELL.
CC      -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC      -----
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CC      -----
EMBL; M60828; AAA63210.1; -
EMBL; S81661; AAB21431.1; -

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DR PIR: A31453; A31453.
DR PIR: A36301; A36301.
DR HSSP: P31371; 1G82.
DR Genew: HGNC:3685; FGF7.
DR MIM: 148180; -.
DR InterPro: IPR002209; HB/F-growthfact.
DR InterPro: IPR002348; IL1_HBGF.
DR Pfam: PF00167; FGF_1.
DR PRINTS: PR00262; IL1HBGF.
DR ProDom: PD000831; HB/F-growthfact; 1.
DR SMART: SM00442; FGF_1.
DR PROSITE: PS00247; HBGF_FGF; 1.
DR Growth factor; Mitogen; Signal.
FT SIGNAL 1 31
FT CHAIN 32 194
FT CARBOHYD 45 45
FT SEQUENCE 194 AA; 22509 MW; B19192474E6049E2 CRC64;

Query Match 17.7%; Score 194; DB 1; Length 194;
Best Local Similarity 30.6%; Pred. No. 3.2e-11;
Matches 55; Conservative 34; Mismatches 67; Indels 24; Gaps 7;

QY 12 CLHFLLCFQVYL---VAEENVDFRIHV---ENQTRARDVSARKQLRYLYOLYSRTSGKH 65
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 18 CFHILCVGTISLACNDMPQMATVNCSSPERHTRSYDMGGDIRVRLFCRTQWY- 76
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 66 IOVLGRISARG-----EGDKYAOILVETDFPGSOYRKKEETERYLCMNRKGLYVK 119
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 77 ----LRIDRKGKVGKTOEMKNYNNIMEIRTVAGI-VAIKGVSESEYLLMNRKGLYAK 130
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 120 PDGTSKECVIEKYLENNYNTALMSAKYS---GMYVGFTRKGRPRKPKTRENOODVHEM 175
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 131 KE-CNEDCNFKELLENNHYNTYASAKWTANGGEMFVALNKGKIPVKKTKKEDKTAHFL 189
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

RESULT 10
FGF7_MOUSE
ID FGF7_MOUSE STANDARD; PRT; 194 AA.
AC P36363;
DT 01-JUN-1994 (Rel. 29, Created)
DT 01-JUN-1994 (Rel. 29, Last sequence update)
DT 01-NOV-1997 (Rel. 35, Last annotation update)
DE Keratinocyte growth factor precursor (KGF) (fibroblast growth factor-7) (FGF-7) (HBGF-7).
GN FGF7 OR FGF-7.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=94242659; PubMed=8186145;
RA Mason I.J., Fuller-Pace F., Smith R., Dickson C.;
RT "FGF-7 (keratinocyte growth factor) expression during mouse development suggests roles in myogenesis, forebrain regionalisation and epithelial-mesenchymal interactions.",
RL Mech. Dev. 45:15-30(1994).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=FVB/N;
RA Jones M.L., Dato M.E., Greenberg J.M.;
RL Submitted (MAY-1996) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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CC -----
DR EMBL: Z22703; CAAB0403.1; -.
DR EMBL: U58503; AAB01343.1; -.
DR PIR: S33227; S33227.
DR HSSP: P31371; 1G82.
DR MGD: MGI:95521; Fgf7.
DR InterPro: IPR002209; HB/F-growthfact.
DR InterPro: IPR002348; IL1_HBGF.
DR Pfam: PF00167; FGF_1.
DR PRINTS: PR00262; IL1HBGF.
DR ProDom: PD000831; HB/F-growthfact; 1.
DR SMART: SM00442; FGF_1.
DR PROSITE: PS00247; HBGF_FGF; 1.
DR Growth factor; Mitogen; Signal.
FT SIGNAL 1 31
FT CHAIN 32 194
FT CARBOHYD 45 45
FT SEQUENCE 194 AA; 22347 MW; 805C30D4BD27C73 CRC64;

Query Match 17.6%; Score 193; DB 1; Length 194;
Best Local Similarity 35.8%; Pred. No. 4e-11;
Matches 53; Conservative 26; Mismatches 51; Indels 18; Gaps 6;

QY 38 ENQTRARDVSARKQLRYLYOLYSRTSGKHIOVLGRISARG-----EDGKYAOILVETD 91
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 50 ERHTRSDYMEGGDIRVRLFCRTQWY-----LRIDRKGKVGKTOEMKNYNNIMEIRTV 103
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 92 TFGSOYRKKEETERYLCMNRKGLYKPDGTSKECVIEKYLENNYNTALMSAK--YSG- 148
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 104 AVGI-VAIKGVSESEYLLMNRKGLYAKKE-CNEDCNFKELLENNHYNTYASAKWTANGG 161
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
QY 149 -WYVGFTRKGRPRKPKTRENOODVHEM 175
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
DB 162 EMFVALNKGKIPVKKTKKEDKTAHFL 189
| : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

RESULT 11
FGF7-SHEEP
ID FGF7-SHEEP STANDARD; PRT; 194 AA.
AC P48808;
DT 01-FEB-1996 (Rel. 33, Created)
DT 01-FEB-1996 (Rel. 33, Last sequence update)
DT 01-NOV-1997 (Rel. 35, Last annotation update)
DE Keratinocyte growth factor precursor (KGF) (fibroblast growth factor-7) (FGF-7) (HBGF-7).
GN FGF7 OR FGF-7.
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae; Bovidae; Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP SEQUENCE FROM N.A.
RA Mitchell J.E.A., McInnes C.J.;
RL Submitted (OCT-1994) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
CC -!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC -----
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CC -----
DR EMBL: Z46236; CAAB6306.1; -.
DR HSSP: P31371; 1G82.
DR InterPro: IPR002209; HB/F-growthfact.
DR InterPro: IPR002348; IL1_HBGF.
DR Pfam: PF00167; FGF_1.

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DR PRINTS:PRO0262; IL1HBGF.
DR Prodom: PD000831; HB/F_growthfact; 1.
DR SMART; SM00442; FGF; 1.
DR PROSITE; PS00247; HBGF_FGF; 1.
DR Growth factor; Mitogen; Signal.
FT SIGNAL 1 31 BY SIMILARITY.
FT CHAIN 32 194 KERATINOCYTE GROWTH FACTOR.
FT CARBOHD 45 45 N-LINKED (GLCNAc...) (POTENTIAL).
SQ SEQUENCE 194 AA; 22448 MW; 80FAFBC5B76668 CRC64;

Query Match
Best Local Similarity 31.0%; Score 193; DB 1; Length 194;
Matches 58; Conservative 33; Mismatches 72; Indels 24; Gaps 8;

OY 5 PSACGCLCHLLHLLCFQYQVLA--VAENVDRIRIV---ENQTRADVSKRQLLXLY 58
DB 11 PSLIRSCGHILLCVGTSLACNDMTPEGMATNVNCSSPERSTRSDYEGGDIVRRLE 70
OY 59 SRTSGKHQVLGRRISANG-----EDGDKYLAQLVETDFESQVRIKETKEFYLCNMR 112
DB 71 CRTQWY-----LIDRKGKVGKQTEMKNKNYIMELRIVAVGI-VAIKGVSEYLLANMK 123
OY 113 KGLVKGKEDGTSKECVFLIEKVLNNITALMSK--YSG--WYVGTTKRKRPKPKRTEN 168
DB 124 EKLTKAKE-CMEDCNFKELILENNYNTYASAKWTHSGGEMFVALNSKGVPAVRKTKKE 182
OY 169 QODVHM 175
DB 183 OKTAHFL 189

RESULT 12
FGF7_CANFA
FGF7_CANFA STANDARD: PRT; 194 AA.
AC P79130;
DT 16-OCR-2001 (Rel. 40, Created)
DT 16-OCR-2001 (Rel. 40, Last sequence update)
DT 16-OCR-2001 (Rel. 40, Last annotation update)
DE Keratinocyte growth factor precursor (KGF) (Fibroblast growth factor-7) (FGF-7) (HBGF-7).
GN FGF7.
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_TaxID=9615;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96226403; Pubmed=8634153;
RA Canatan H., Chang W.Y., Sugimoto Y., Shidaifat F., Kulp S.K., Brueggemeier R.W., Lin Y.C.;
RT "Keratinocyte growth factor (KGF/FGF-7) has a paracrine role in canine prostate: molecular cloning of mRNA encoding canine KGF."
RL DNA Cell Biol. 15:247-254(1996).
RT -1 FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
CC -1 SUBCELLULAR LOCATION: Secreted.
CC -1 SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC -----
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CC -----
DR EMBL; U08000; AAB38972.1; -.
DR HSSP; P31371.1; 1682.
DR InterPro; IPR002209; HB/F_growthfact.
DR InterPro; IPR002348; IL1_HBGF.
DR Pfam; PF00167; FGF; 1.
DR PRINTS; PRO0262; IL1HBGF.
DR Prodom; PD000831; HB/F_growthfact; 1.

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[illegible]


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CC -----
DR EMBL: AJ010553: CAA09234.1; -.
DR HSSP: P31371; 1G82.
DR HSSP: P31371; 1G82.
DR WormPep: C05D11.4; CE24786.
DR InterPro: IPR002209; HB/F_growthfact.
DR Pfam: PF00167; FGF_1.
DR ProDom: PD000831; HB/F_growthfact; 1.
DR SMART: SM00442; FGF_1.
DR PROSITE: PS00247; HBGF_FGF; FALSE_NEG.
KW Developmental protein; Growth factor.
FT DOMAIN 322 328 POLY-GLN.
FT DOMAIN 381 387 POLY-HIS.
FT DOMAIN 391 394 POLY-SER.
SQ SEQUENCE 425 AA; 49569 MW; E04A5A2D94F044D2 CRC64;

Query Match 17.3%; Score 190; DB 1; Length 425;
Best Local Similarity 28.2%; Pred. No. 1.9e-10;
Matches 61; Conservative 31; Mismatches 62; Indels 62; Gaps 11;

QY 44 RDVYSRQQL-----RLYLYSRTSGKHLYVL-----GRRISARG--ED 79
DB 49 RVDRIKRLQDEENGYPADRRRGAFCR-SGTWLEMLPIENPDGSTRVKVHGTEE 107
QY 80 GDKYAQLIVE-TDFGSOVRIRKGETEFYLCMNRKGLVGPDGT-SKECVFEIKVLENN 137
DB 108 SSKS--IVEFVSVAAMSLVSRIGVETKMFICMDPSGLYATPSSNSTECVFLEEMENY 165
QY 138 YTALMSAKY---SGWYVGFTKRGPRPKRPKPTRENQDVHFM-----KRPYKG-- 181
DB 166 YNLVASCAYGDRFNPWYIELRSGSKPRRGPNSKKRRKASHPLVYVHDDLRLRSPVNGND 225
QY 182 -----QPELOKPFKTTYTKRSRRIRPTHP 206
DB 226 VTDLVASLFRHPPSHPLFRQTYTK-----PPNP 255

RESULT 14
FGF7_PIG STANDARD; PRT; 194 AA.
AC Q9N196;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-JUN-2002 (Rel. 41, Last annotation update)
DE Keratinocyte growth factor precursor (KGF) (Fibroblast growth factor-
DE 7) (HGF-7) (HBGF-7).
GN FGF7.
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suidae; Sus.
OX NCBI_TaxID=9823;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Endometrium;
RX MEDLINE=20297022; PubMed=10819782;
RA KA H., Spencer T.E., Johnson G.A., Bazer F.W.;
RT "Keratinocyte growth factor: expression by endometrial epithelia of
RT the porcine uterus.";
RU Biol. Reprod. 62:1772-1778(2000).
CC -1- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE MAJOR
CC PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION (BY
CC SIMILARITY).
CC -1- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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DR EMBL: AF217463: AAF26734.1; -.
DR HSSP: P31371; 1G82.
DR InterPro: IPR002209; HB/F_growthfact.
DR InterPro: IPR002348; IL1_HBGF.
DR Pfam: PF00167; FGF_1.
DR PRINTS: PR00262; IL1HBGF.
DR ProDom: PD000831; HB/F_growthfact; 1.
DR SMART: SM00442; FGF_1.
DR PROSITE: PS00247; HBGF_FGF; 1.
KW Growth factor; Mitogen; Signal.
FT SIGNAL 1 31
FT CHAIN 32 194 KERATINOCYTE GROWTH FACTOR.
FT CARBOHYD 45 45 N-LINKED (GLYCAC. . .) (POTENTIAL).
SQ SEQUENCE 194 AA; 22463 MW; BA44B5B45A731B0 CRC64;

Query Match 17.2%; Score 188.5; DB 1; Length 194;
Best Local Similarity 31.2%; Pred. No. 1.1e-10;
Matches 55; Conservative 34; Mismatches 64; Indels 23; Gaps 7;

QY 19 CFQYQVLYAEENVDR-----IHYENQTRADVSRKQLRLYLYSRTSGKH 65
DB 18 CFHICLVGLTSLDCNDMTPEOMATNVNCSPPERTRSYDMEGGDIVRRLFCPT--QW 75
QY 66 IQVGRIRISARG--EDGKYAQLIVETDFGSOVRIRKGETEFYLCMNRKGLVGPDGT 123
DB 76 YPRIGKRKKVKGTOGEMKNYINMEIRYAVGI-VAIKVSEYIYLAAMKEGLYAKKE-Y 133
QY 124 SKECVFEIKVLENNYTALMSAK--YSG--WYVGFTKRGPRPKRPKPTRENQDVHFM 175
DB 134 NEDCNFKELILENNHYNTVASAKWTHSGGEMVALNOKGVPRGKTKKQKTAHFL 189

RESULT 15
FGF7_RAT STANDARD; PRT; 194 AA.
AC Q02195;
DT 01-JUL-1993 (Rel. 26, Created)
DT 01-JUL-1993 (Rel. 26, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Keratinocyte growth factor precursor (KGF) (Fibroblast growth factor-
DE 7) (FGF-7) (HBGF-7).
GN FGF7 OR FGF-7 OR KGF.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=91331931; PubMed=1869483;
RA van G., Nikolopoulos S., Mang F., McKeenan W.L.;
RT "Sequence of rat keratinocyte growth factor (heparin-binding growth
RT factor type 7).";
RU In Vitro Cell. Dev. Biol. 27A:437-438(1991).
CC -1- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE
CC MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
CC -1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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DR PROSITE: PS00247; HBGF_FGF: 1.
 KW Growth factor; Mitogen; Signal.
 FT SIGNAL 1 31 BY SIMILARITY
 FT CHAIN 32 194 KERATINOCYTE GROWTH FACTOR.
 FT CARBOHYD 45 45 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT CARBOHYD 149 149 N-LINKED (GLCNAC. . .) (POTENTIAL).
 SQ SEQUENCE 194 AA; 22268 MW; 5242CDAC305CC8C1 CRC64;

Query Match 17.08; Score 187; DB 1; Length 194;
 Best Local Similarity 35.18; Pred. No. 1.5e-10;
 Matches 52; Conservative 27; Mismatches 51; Indels 18; Gaps 6;

QY 38 ENOTRRARDVSRKQLRLYLVSRTSGKHQVLRGRISARG-----EDGDKYQQLVETD 91
 Db 50 ERHTRSYDYMGGDIRVRLFCRTQWY-----LRIDRGRKVGKGTQEMRNSYNTIMEITV 103
 QY 92 TFGSOVRIRKGETEFYLCMNRKGLVGPDTGSKECVFEIEVLENNYTALMSAK--YSG- 148
 Db 104 AVGI-VAIKGVSESEYLLAMNKGELYAKKE-CNEDCNFKELILENHYNTSASAKWTHSGG 161
 QY 149 -WYVGFTKKGRPRKGPPTREMOQDVHFM 175
 Db 162 EMFYALNQKGLPVKGGKTKKEOKTAHFL 189

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